

REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-4 and 15 stand rejected under 35 U.S.C. §102(b) as being anticipated by Chen (U.S. 6,468,904). Claims 5-7 and 17-22 are rejected under 35 U.S.C. §103(a) as unpatentable over Chen in view of Wang.

The Examiner indicates that the thermal annealing step of part b of Claim 1, that is, carrying out first thermal-annealing to said semiconductor substrate is “inherent since the layer 22 of Si-oxynitride or nitride will require heating the substrate during deposition, (column 2, line 65 – column 3, line 2)”.

Without regard to whether the Examiner is correct, Chen does not disclose that the first thermal annealing is spike rapid thermal annealing (RTA), which had been recited previously in Claim 6 (now canceled), and is now recited in Claim 1. The method defined in amended claim 1 now includes the step (b) of carrying out spike rapid thermal annealing (RTA) as first thermal-annealing. Accordingly, claim 1 and claims depending therefrom are not anticipated by Chen.

Claims 5-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Wang (US 6,448,167). Claims 5-7 are dependent directly or indirectly on claim 1, and are believed to be patentable over the combined teachings of Chen in view of Wang for the reasons set forth above.

Claims 17-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Wang (US 6,448,167), though the applicants understand that this rejection may have been intended to encompass Claim 16.

Wang suggests a method including forming a RPO (resistor protect oxide) layer, carrying out RTA, and removing the RPO layer. Thus, the combination of Chen and Wang could possibly teach a method including the steps of:

- (a) forming STI;
- (b) carrying out ion implantation;
- (c) forming a RPO layer;
- (d) carrying out RTA;
- (e) removing the RPO layer;
- (f) forming an electrically insulating film;
- (g) removing the electrically insulating film;
- (h) forming a metal film; and
- (i) carrying out second annealing.

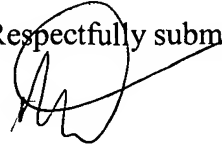
In the method defined in claim 16, the oxide film formed in the step (c) subsequently to the implantation of impurity ions provides a silicide block in the non-silicide transistor region that is mentioned in Claim 16 part (e).

According to the combination of Chen in view of Wang that is discussed above, using the oxide film as a silicide block is not disclosed or suggested by the combined teachings.

Also, since the method provided by the combination of Chen and Wang includes two steps of removing an insulating film, that is, the steps (e) and (g), it is not possible to prevent a recess to be formed at a shoulder of a STI film from becoming deep. This is in contrast to the present invention.

Wherefore, based upon the foregoing, it is respectfully submitted that the present application is in condition of allowance and a relatively early reply is requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'RJD', is written over the words 'Respectfully submitted,'.

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